

Remarks

Reconsideration of this Application is respectfully requested.

Claims 18-25 and 28-36 are pending in the application, with claims 18 and 31 being the independent claims. Claims 1-17 and 26-27 were previously cancelled.

Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections of Claims 18-25, 28-30, and 35

Claims 18, 20, and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,116,043 to Clark *et al.* ("Clark") in view of U.S. Patent No. 6,216,469 to Miller and in further view of U.S. Patent No. 4,912,935¹ to Goldstein (" '935 Goldstein"). Claims 19, 21, 22, 24, 25, 28-30, and 35 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of Miller and in further view of '935 Goldstein and in further view of one or more additional documents. Applicant respectfully traverses these rejections.

¹ It is noted that the Office Action refers to U.S. Patent No. 6,301,904 to Goldstein. However, the Examiner confirmed in the phone conversation of November 15, 2010 that the Office Action should have referred to U.S. Patent No. 4,912,935 to Goldstein.

Independent claim 18 is directed to a method for tempering at least one packaged product unit in a treatment tank. The method comprises:

- placing the at least one packaged product unit in the treatment tank;
- introducing an ice slurry comprising water and ice particles into the treatment tank; and
- circulating the ice slurry in the treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit, wherein the ice slurry present in an overflow trough located at an upper part of the treatment tank is pumped through a pipe connected to the overflow trough and injected back into the treatment tank through at least one injection nozzle.

Clark, Miller and '935 Goldstein, either alone or in combination, fail to disclose or render obvious the claimed invention.

I. There Would Have Been No Expectation for Success That the System of Clark Would Circulate an Ice Slurry

Clark is directed to a food processing apparatus wherein liquid 22 in a tank 16 is recirculated by pumping liquid 22 exiting tank 16 through a drain 32, located at the bottom of tank 16, back into tank 16 through nozzle 28 at the top of tank 16. See Fig. 1.

Liquid 22 is not an ice slurry.

The Examiner relies on Miller to cure the deficiency of Clark not disclosing circulating an ice slurry by asserting it would have been obvious to one of ordinary skill in the art at the time the invention was made to have coil 24 generate ice that would mix with liquid 22 and recirculate. However, such a modification to Clark would not have been obvious because there would not have been a reasonable expectation of success. In particular, Clark has a perforated diffuser wall 20 that acts as a filter to protect the pump

from foreign debris from the food in tank 16 or broken pieces of food casings. See col. 4, lines 32-36. Thus, diffuser wall 20 would also act to filter ice particles present in an ice slurry and would prevent the ice particles from passing through diffuser wall 20 and clogging the pump and recirculation unit. Therefore, the ice slurry would be prevented from circulating. One of ordinary skill in the art would not have had a reasonable expectation of success that the proposed modification of Clark would circulate an ice slurry. Accordingly, a *prima facie* case of obviousness has not been established.

II. There is Insufficient Reasoning to Modify Clark to Circulate an Ice Slurry Present in an Overflow Trough Located at an Upper Part of the Treatment Tank Back Into the Treatment Tank

In addition, Clark recirculates liquid 22 from the bottom of tank 16 back into tank 16 through nozzle 28 at the top of tank 16. This is opposite to the claimed circulation wherein ice slurry present in an overflow trough located at an upper part of the treatment tank is pumped through a pipe and injected back into the treatment tank. Further, while Clark discloses an overflow tube 134 to allow excess liquid to drain from the tank and into a bottom drain or sump 138 (see col. 6, lines 39-41), Clark provides no disclosure or rationale for circulating the excess liquid back into tank 16. Miller does not cure this deficiency of Clark. The Examiner relies on '935 Goldstein to cure this deficiency of Clark.

While the Examiner relies on '935 Goldstein to cure the deficiency noted above in Clark, one of ordinary skill in the art would not have had a sufficient reason to modify Clark in view of Goldstein to arrive at the claimed invention. In particular, '935 Goldstein discloses scraping ice bed 17, 17A, or 17' into ice outlet 40, 40A, or 40' at an upper part of a tank. Thus ice outlet 40, 40A, or 40' contains only ice, not an ice slurry

(i.e., a combination of water and ice particles). Rather, water is introduced to the ice stream through pipe 42, 50A or 50' to form an ice slurry that is circulated into the tank. Thus, at best Goldstein suggests removing ice from an upper part of a tank and then adding water to it downstream of the ice outlet to form an ice slurry to circulate in the tank. However, claim 18 recites that the ice slurry present in an overflow trough located at an upper part of the treatment tank is pumped through a pipe connected to the overflow trough and injected back into the treatment tank. Since, '935 Goldstein does not suggest circulating ice slurry present in an overflow trough located at an upper part of a treatment tank is injected back into the treatment tank, '935 Goldstein would not provide one of ordinary skill in the art at the time the invention was made sufficient reasoning to modify the combination of Clark and Miller as proposed by the Examiner. Accordingly a *prima facie* case of obviousness has not been established.

III. Modifying the System of Clark with the Features of '935 Goldstein Would Destroy the Ability of Clark to Function for its Intended Purpose

In addition, Clark is directed to a system that can serve as both a refrigerator and a heater. See col. 3, lines 48-51. In order to modify Clark to perform the recited circulating of the claim 18 (i.e., circulating the ice slurry in the treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit, wherein the ice slurry present in an overflow trough located at an upper part of the treatment tank is pumped through a pipe connected to the overflow trough and injected back into the treatment tank through at least one injection nozzle) in light of '935 Goldstein, it would be necessary to incorporate the features of '935 Goldstein. In particular, it would be necessary for Clark to have ice bed 17, 17A, or 17' of '935 Goldstein and the associated scraper. Such a modification to Clark would unnecessarily

complicate the system of Clark and would destroy the intended function of Clark because it would result in the system of Clark only being able to function as a refrigerator, and not a heater as well. Accordingly, one of ordinary skill in the art would have had no reason to modify Clark if it would destroy the ability of Clark to function for its intended purpose. Thus, a *prima facie* case of obviousness has not been established.

For at least the above reasons, independent claim 18, and claims 19-25, 28-30, and 35 which depend therefrom, are allowable. Accordingly, Applicant respectfully requests that these rejections be reconsidered and withdrawn, and the claims allowed.

Rejections of Claims 31-34 and 36

Claims 31, 32, and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of '935 Goldstein. Claims 33 and 34 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of '935 Goldstein and in further view of an additional document. Applicant respectfully traverses these rejections.

Independent claim 31 is directed to a system for tempering at least one packaged product unit utilizing an ice slurry comprising water and ice particles. The system comprises:

- at least one treatment tank for submerging the at least one packaged product unit, wherein the at least one treatment tank comprises an upper part with an overflow trough;

- at least one injection nozzle;
 - a pipe connecting the overflow trough and the at least one injection nozzle; and

- a pump associated with the pipe for pumping ice slurry present in the overflow trough through the pipe and injecting the ice slurry back into the at least one treatment tank through the least one injection nozzle so as to circulate the ice slurry in the at least one treatment tank around the at

least one packaged product unit in order to cool the at least one packaged product unit.

Clark and '935 Goldstein, either alone or in combination, fail to disclose or render obvious the claimed invention.

I. There Would Have Been No Expectation for Success That the System of Clark Would Circulate an Ice Slurry

Clark is directed to a food processing apparatus wherein liquid 22 in a tank 16 is recirculated by pumping liquid 22 exiting tank 16 through a drain 32, located at the bottom of tank 16, back into tank 16 through nozzle 28 at the top of tank 16. See Fig. 1. This is opposite to the claimed circulation wherein ice slurry present in an overflow trough located at an upper part of the treatment tank is pumped to through a pipe and injected back into the treatment tank. Further, while Clark discloses an overflow tube 134 to allow excess liquid to drain from the tank and into a bottom drain or sump 138 (see col. 6, lines 39-41), Clark provides no disclosure or rationale for circulating the excess liquid back into tank 16.

The Examiner relies on Goldstein to cure this deficiency of Clark. However, such a modification to Clark would not have been obvious because there would not have been a reasonable expectation of success. In particular, Clark has a perforated diffuser wall 20 that acts as a filter to protect the pump from foreign debris from the food in tank 16 or broken pieces of food casings. See col. 4, lines 32-36. Thus, diffuser wall 20 would also act to filter ice particles present in an ice slurry and prevent the ice particles from passing through diffuser wall 20. Therefore, the ice slurry would be prevented from circulating. One of ordinary skill in the art would not have had a reasonable

expectation of success that the proposed modification of Clark would circulate an ice slurry. Accordingly, a *prima facie* case of obviousness has not been established.

II. Modifying the System of Clark with the Features of '935 Goldstein Would Destroy the Ability of Clark to Function for its Intended Purpose

In addition, Clark is directed to a system that can serve as both a refrigerator and a heater. See col. 3, lines 48-51. In order to modify Clark to perform the recited function of the claim 31 (i.e., pumping ice slurry present in the overflow trough through the pipe and injecting the ice slurry back into the at least one treatment tank through the least one injection nozzle so as to circulate the ice slurry in the at least one treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit) in light of '935 Goldstein, it would be necessary to incorporate the features of '935 Goldstein. In particular, it would be necessary for Clark to have ice bed 17, 17A, or 17' of '935 Goldstein and the associated scraper. Such a modification to Clark would unnecessarily complicate the system of Clark and would destroy the intended function of Clark because it would result in the system of Clark only being able to function as a refrigerator, and not a heater as well. Accordingly, one of ordinary skill in the art would have had no reason to modify Clark if it would destroy the ability of Clark to function for its intended purpose. Thus, a *prima facie* case of obviousness has not been established.

For at least the above reasons, independent claim 31, and claims 32-34 and 36 which depend therefrom, are allowable. Accordingly, Applicant respectfully requests that these rejections be reconsidered and withdrawn, and the claims allowed.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



John T. Haran
Attorney for Applicant
Registration No. 58,010

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
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